Universal LINC485 REPEATER/ROUTER

SPECIFICATIONS | NEW RELEASE | Form 450.20-S30 (702)

The Universal LINC485 Repeater/Router provides a simple, universal method for segmenting or extending a YORK ISN Local Area Network (LAN). This small, economical device can be located exactly where needed in a small space with minimal setup time and configuration effort.

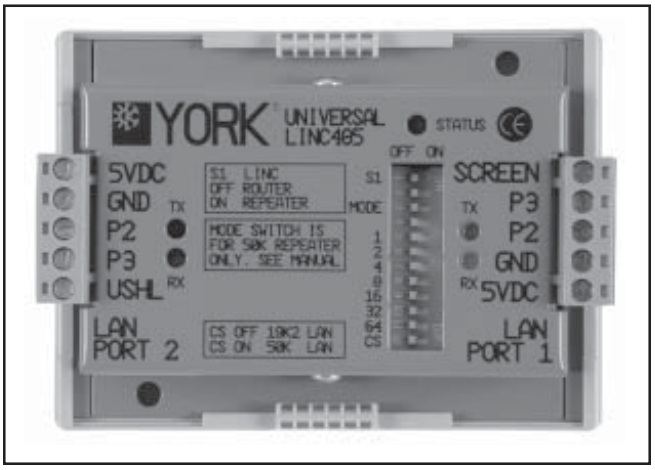
By using DIP switches on the device, the Universal LINC485 may be configured to function as a repeater, extending the length of the network, or as a router, dividing the network into subnetworks. The DIP switches are also used to set the subnetwork address. The DIP switches eliminate the need to connect a computer and set software, as required for many types of devices.

When functioning as a repeater, the Universal LINC485 extends a network or subnetwork beyond the 4000 ft. (1220 m) and 31 node RS485 limitation. A maximum of 2 repeaters per network or subnetwork allow an overall length of 12,000 ft. and maximum of 92 nodes on a network (91 for a subnetwork).

When functioning as a router, the Universal LINC485 provides communication management between sub-networks and the main network. Packet information is not transferred beyond the Universal LINC485 unless a different subnetwork is addressed. This limits the overall traffic throughout the network by keeping "local" data within the local sub-network.

Features and Benefits

- Extends network length from 4000 ft. (1220 m) to 12,000 ft. (3660 m).
- Increases network "size" to 92 sub-networks with over 8000 controllers.
- Single device functions as either a repeater or router, simplifying stock and inventory requirements.
- Simple DIP switch setup facilitates a wide variety of network configurations without a computer interface.
- DIN rail mounting is standard.
- Visual indicators of operating and communication status.
- UL916 pending. Complies with relevant CE EMC and safety directives.



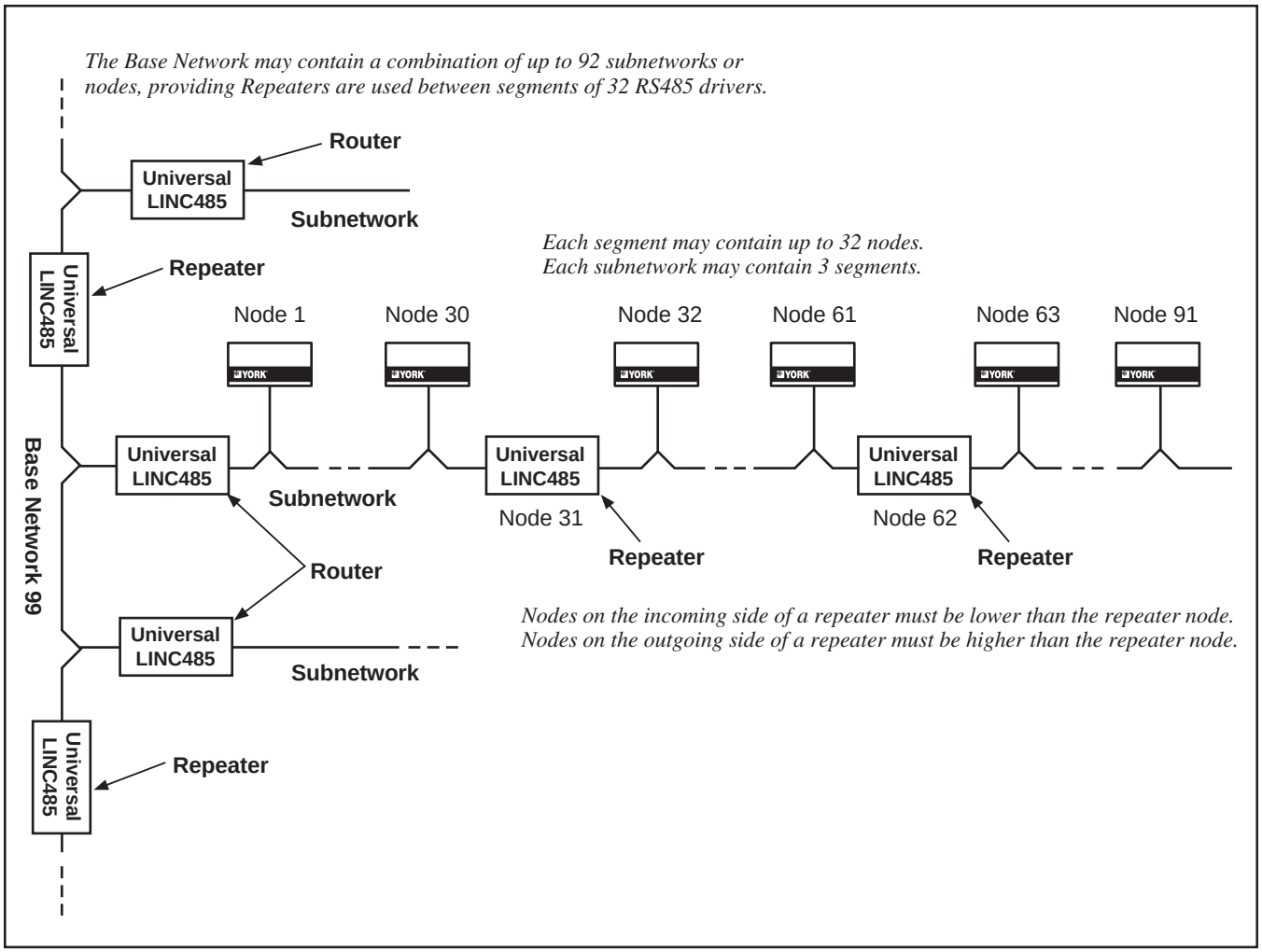
Universal LINC485 Repeater/Router

Connection to the LAN is completed using a twisted-pair, shielded cable attached to individual screw terminals. 5 VDC power can be supplied from either an optional power supply or directly from the network, if located within 3 ft. (1 m) of a newer controller equipped with a USB-style connector.

When located in a more remote location, a separate 5 VDC Power Supply is available for connection to a 115/230 VAC power source. DIN rail mounting is standard for the Universal LINC485 as well as the optional Power Supply. For additional versatility, the LINC may be attached directly to the Power Supply and the assembly mounted on a DIN rail or fixed directly to a panel.

The Universal LINC485 operates on ISN networks which use Rev. 6, Rev. 7, or UCS software. A DIP switch sets the Universal LINC485 to operate at a network transfer speed of either 19.2 or 50 kbaud.

A System Status LED provides information on the operating condition of the device. Two additional LEDs at each port provide information concerning the communication status of each port.



Typical LAN Configuration utilizing Universal LINC485

Connection

To provide simple connection the Universal LINC485 uses the same connectors as all YORK ISN controllers-a removable, 5-screw press-in connector. In addition to the screw connector, newer ISN controllers utilize a USB-style connector. This additional connector provides a simple method for connecting Universal LINCs to the controller. If within 3 ft. (1 m) of a new-style controller equipped with a USB-style LINC port, sufficient power is provided through the LAN connection. For installations at greater distances and older controllers, an optional 5 VDC Power Supply is available.

Mounting Configurations

The Universal LINC485 provides several mounting methods for greater installation flexibility. Shipped in a housing with a DIN rail mounting clip, the unit can be attached to any open DIN rail space within an existing controller. If the controller does not use DIN rail, the Universal LINC can be removed from the housing and secured inside the controller with small screws (1/8 in./4 mm or smaller).

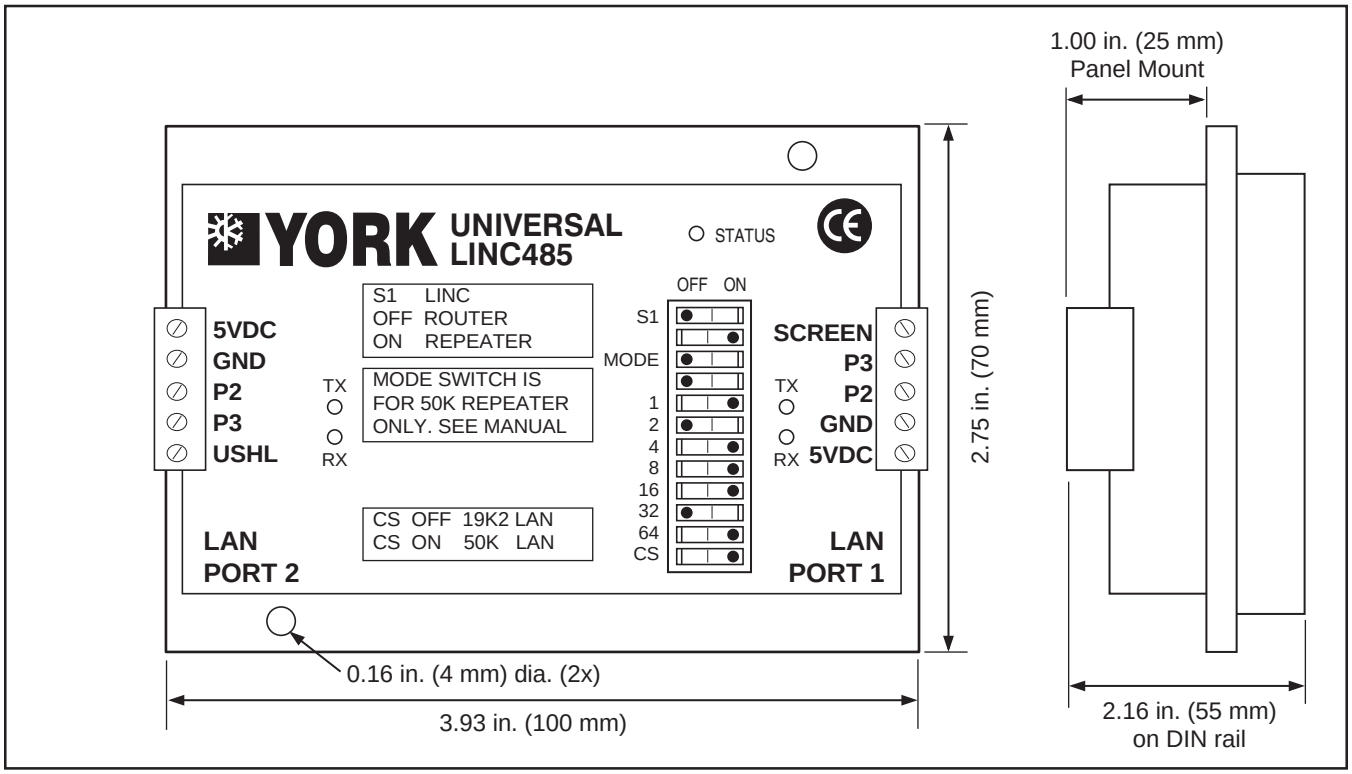
If space is unavailable inside the controller enclosure, a small, auxiliary enclosure is available. The auxiliary enclosure includes a DIN rail to mount the Universal LINC and an accompanying 5 VDC Power Supply. (It also accepts the TDCE controllers.)

Universal LINC485 with Optional Power Supply Mounted in Optional DIN Rail Box

5 VDC Power Supply

The optional 5 VDC Power Supply takes advantage of the same flexibility included with the Universal LINC. Shipped within the same style housing, it also includes a DIN rail mounting clip. If space allows it may be clipped to a DIN rail inside a controller enclosure. If space is at a premium, the Universal LINC can be removed from the housing and attached to the top of the power supply in “piggy-back” fashion. Both items can then be attached to a DIN rail, requiring a smaller foot-print.

If DIN rails are not available, the 5 VDC Power Supply can be removed from the housing and attached directly to a panel. And, as mentioned previously, it can also be installed inside the auxiliary enclosure alongside the Universal LINC.



Universal LINC485 and Optional Power Supply Mounting Dimensions

SPECIFICATIONS

General	Primary Power Source	5 VDC, (±5%)
	Frequency	N/A
	Power Consumption	Nominal 180 mA; Limited to 250 mA
	Storage Temperature	-40 to 160° F (-40 to 70° C)
	Operating Environment	32 to 122° F (0 to 50° C) 10 to 95% RH non-Condensing
	Size (H x W x D)	3.93 x 2.75 x 2.17 in. (100 X 70 X 55 mm) on DIN rail
	Weight	0.44 lb. (0.20 kg)
Electrical	Processor	NEC V25 operating at 8 MHz
	Memory PROM	256 kbytes
	Memory RAM	128 kbytes
User Functions	Port 1	RS485 LAN Port/USB Cable
	Port 2	RS485 LAN Port
	Terminations	Removable Terminal Strips. Max Cable Size 16 AWG (1.5 mm^2 CSA)
	Status LEDs	System Status; Port 1 LAN Status; Port 2 LAN Status
	Switch Selections	Device Type; Mode Selection; Node Address (1-98); LAN Transfer Rate
	Network Cable	Shielded, Twisted-Pair (Belden 9272 or Equivalent)
Optional	Power Supply Kit	115/230 VAC (±10%)
	Frequency	50/60 Hz (±10%)
	Power Consumption	Nominally 2 VA
	Maximum Power Output	300 mA
	Size (H x W x D)	3.78 x 3.66 x 2.95 in. (96 X 93 X 75 mm) on DIN rail
	Weight	1.1 lb. (0.5 kg)
Optional	USB Cable	USB-Style Connector to 5-Pin Push-in Connector
	Cable Length	39 in. (1 m)

Ordering Information

Universal LINC485	371-04138-002
5 VDC Power Supply (115 VAC Input)	371-04130-001
5 VDC Power Supply (230 VAC Input)	371-04130-002
Patch Cable	371-01429-000
Small Enclosure with DIN Rail	371-04131-000

Agency

UL 916 Pending
FCC Part 15 Conducted and Radiated
LVD Standard EN60950
Emission Standard EN55022; 1994 Class A
CE (Satisfying all the relevant EMC directives) and IEC950/EN60950 (Safety directive)

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